Local Work Instruction:
Noble Discoverer: Fire Control System Test Water Discharge – D008

Approved By:
Scope:
Issue Date:
Revision level:

Written By: Buddy Brooks
Revised By: R. Lebman / D. Johnson
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SCOPE:

This document offers work level instructions for the sampling, testing, and reporting associated with the discharge of fire system test water while operating under the guidelines of the NPDES General Permit (AKG-28-8100), onboard the *Noble Discoverer*. The fire control test system consists of untreated seawater released during the training of personnel in fire protection and the testing and maintenance of fire protection equipment. Effluent will either go directly overboard or will be collected on the decks and piped to the deck drainage system for discharge. No biocides or chemicals will be added to this system.

RESPONSIBILITY:

The M-I SWACO NPDES Compliance Specialist is responsible to ensure that this LWI has been provided to each person prior to conducting this task. Any personnel that may perform the tasks outlined in this document must be familiar with the process, before the rig begins operating under NPDES regulations.

During active drilling operations, the M-I SWACO NPDES Compliance Specialist is responsible for performing the following tasks per discharge:

- Estimate flow volume.
- Perform and document visual sheen tests. If visual sheen tests cannot be performed, collect and document samples for static sheen tests.

The M-I SWACO NPDES Compliance Specialist is responsible for performing the following sampling tasks four times per well:

- Four times per well, at intervals designated to be representative of the discharge's toxicity, a sample will be collected for initial toxicity screening. Each sample will be collected at a time period selected to reflect discharge processes and operational processes. Collect and document initial toxicity screening samples.
- WET testing will be required if either of the following occurs: 1) Initial rapid toxicity screening threshold criteria are exceeded OR 2) discharge exceeds 10,000 gallons during any 24-hr period and chemicals are added to the system. If WET testing is required, collect and document samples. Immediately transfer the samples to the sample refrigerator for storage awaiting packaging for transportation to the fixed analytical laboratory. Package samples for transport to the fixed analytical laboratory.

During active drilling operations, the M-I SWACO NPDES Compliance Specialist is responsible for performing the following tasks on a monthly basis:

- Collect and document samples for pH analysis.

1.0 References:

1.0 NPDES GP AKG-28-8100:

1.0.1 Table 9– *Effluent Limitations and Monitoring Requirements for Fire Control System Test Water (D008).*

1.1 Noble Discoverer Best Management Practices Plan, April 2015.

1.2 Noble Discoverer Quality Assurance Project Plan, April 2015.

1.3 M-I SWACO Standard Operating Procedures: 1006, 2001, 2012, 2003, 2008, 3004, ENV001.01, TOX045.02, TOX002.05, TOX012.06, TOX014B.02, TOX043.06.

2.0 General Requirements:

2.0 The M-I SWACO NPDES Compliance Specialist is responsible for discharge sampling, testing, and reporting to Shell Environmental Department while operating under NPDES GP AKG-28-8100.

2.1 The Shell Environmental Department is responsible for maintaining the Discharge Monitoring Report (netDMR) and submitting to EPA all discharges sampling, testing and results on a monthly basis.

2.2 The Noble is responsible for operating and repairing all equipment associated with this discharge.

3.0 Safety Guidelines:

3.0 Before any operations can take place, all personnel involved in this process must complete the following details if required by operator or contractor:

3.0.1 The Pre-Tour Meeting is when daily activities are discussed.

3.0.2 Job Safety Analysis will be completed with all involved parties present.

3.0.3 Review Risk Assessment, if applicable.

3.0.4 Noble Permit to Work

3.1 Appropriate personal protective equipment must be worn at all times.

4.0 Discharge/Task Description:

4.0 Noble may test the fire control systems onboard the Noble Discoverer once per week during drills.

4.1 Seawater is drawn through a sea chest and pumped through the fire control system. The test water is then discharged directly overboard through fire hoses.

4.2 Since Noble randomly selects one fire station throughout the rig for testing, the M-I SWACO NPDES Compliance Specialist will confirm with the Noble Marine Department which and when that station will be tested.

4.2.1 While the fire test seawater is discharged from the hose directly overboard, the M-I SWACO Compliance Specialist will perform a visual inspection of the receiving water.

4.2.2 Results and volumes are recorded and submitted to the Shell Environmental Department.

4.3 If samples need to be collected for additional testing, they will be collected directly from the fire hose.

4.4 Once per discharge event, the M-I SWACO NPDES Compliance Specialist will conduct a visual observation for visual sheen as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water.

4.5 The M-I SWACO NPDES Compliance Specialist will visually monitor the surface of the receiving waters in the vicinity of the outfall(s) during daylight at the time of maximum estimated discharge and during conditions when observations on the surface of the receiving water are possible in the vicinity of the discharge. The observations and time of day are to be recorded in the NPDES Daily Report.

4.6 If visual observations of the discharge are not possible, the permittee must sample (grab sample) the fire control system test discharge and test for sheen using the static sheen test.

4.7 The M-I SWACO NPDES Compliance Specialist will immediately report to Shell Environmental Department at 907-830-7435, of any upset condition.

Effluent Parameter	Effluent Limitations		Monitoring Requirements	
	Average Monthly Limit	Maximum Daily Limit	Sample Frequency	Sample Type
pH	Report (s.u.)		Monthly	Grab
Free oil	No discharge note 1,2		Once/discharge	Visual/Grab
Total Volume	Report (gal)		Monthly	Estimate
WET	Report (TU_c)		Use rapid toxicity test 4X/well as initial screen. If test passes, WET not required.	Collect grab sample for analysis if results show potential toxicity or 1X/well if discharge >10,000 gal during 24 hr and if chemicals are added to the system.

5.0 Sampling Plan for Fire Control System Test Water (D008):

6.0 Clean-up:

6.0 Follow housekeeping procedures.

7.0 Contingency:

7.0 Any fire system test water that is released onto the main deck will be considered comingled with deck drainage and the most stringent permit requirements will apply.

Revision Log:

Date:	Document History:	Revised/reviewed by:	Location: